

maintain a secure muscle attachment. The scallop on the other hand has a thin, delicate shell in which there is little variation in thickness from the hinge to the ventral margin in mature specimens. This seems to indicate that only the margins of the mantle are capable of elaborating nacre in quantity with the remaining area secreting mainly conchiolin when irritated. Thus the scallop may protect itself from *Polydora* infestations near the periphery by walling them off with calcifications but appears to be unable to cope with worms closer to the hinge where they may interfere with the attachment of the adductor muscle.

There seems to be no simple way of eliminating *Polydora* from growing scallops. Korringa (1952) reported success in oysters by placing infected specimens in fresh water for 16 hours or in 1/2% solution of the ammonium salt of dinitro-orthocresol. The oyster is capable of closing its valves completely and protecting itself for many hours while fresh water or sterilizing solution seeps into the blisters through the communicating pores and kills the worms. The scallop on the other hand cannot close its valves completely and is very sensitive to fresh water and lethal chemicals.

REFERENCES CITED

- Korringa, P. 1952. Recent advances in oyster biology. Quarterly Rev. Biol., 27, (4): 339-365.
- Loosanoff, V. L. and J. B. Engle. 1943. *Polydora* in oysters suspended in the water, Bio. Bull., 85 (1): 69-78.
- Lunz, G. R., Jr., 1941. *Polydora*, a pest in South Carolina oysters. Journ. Elisha Mitchell Sci. Soc., 57: 273-283.
- Needler, A. W. H. 1941. Oyster farming in eastern Canada. Bull. Fish. Res. Bd. Can., 60: 1-83.
- Nelson, T. C. and L. A. Stauber. 1940. Observations of some common polychaetes on New Jersey oyster beds with special reference to *Polydora*. Anat. Rec., 78: 102-103 (Abstr. 142).
- Plaine, H. L. 1952. A variation in the distribution of a spionid polychaete in the Woods Hole region. Ecol., 33 (1): 121-123.

A NEW OPERCULATE LAND SNAIL FROM HAITI

BY OSCAR ALCALDE AND MORRIS K. JACOBSON

The genus *Crocidopoma* Shuttleworth 1857, comprises a small number of species of planorbiform operculate land snails that are apparently confined to eastern Cuba and Hispaniola. Bartsch (1942, p. 39) separated the Hispaniolan from the Cuban forms

on the basis of differences in the operculum, confined the true *Crocidopoma* to Hispaniola and erected the subgenus *Cyclocubana* for the Cuban ones. The nature of the operculum of the new species here described tends to support this division. Bartsch (1942) recorded 6 species and 1 subspecies of this genus from Hispaniola, of which 4 were described as new. Thus the present discovery of a new species of this genus in a well travelled and frequently collected area suggests that additional species of these mulch-dwelling mollusks remain to be discovered.

CROCIDOPOMA (CROCIDOPOMA) ZAYASI, new species Pl. 12, figs. 1, 2

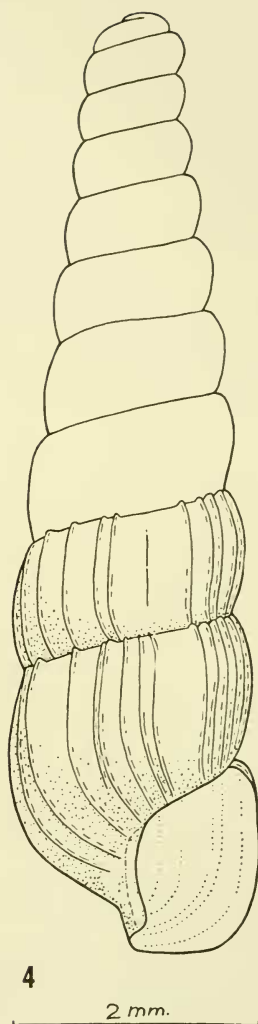
Diagnosis: A cyclophorid of the genus *Crocidopoma* distinguished by a widely solute and sharply descending last whorl.

Description: Shell planorbiform, yellowish horn colored, whorls $4\frac{1}{2}$ to 5; aperture circular, very slightly oblique; peristome thin, simple, slightly and regularly distorted by the terminations of the strong spiral cords. Sculpture consists of raised, rounded spiral cords, of which there are 18 to 19 on the last whorl; intercordal spaces almost flat, distinctly wider than the raised cords. The cord at the summit of the body whorl is the strongest, somewhat keel-like. Growth lines distinct, crowded, giving the impression of pseudo-axial striae. Nuclear whorls smooth or minutely, irregularly pitted; post-nuclear whorls marked by the beginning of the spiral cords which grow stronger as they approach the aperture. Suture narrowly but deeply channeled; umbilicus widely open, showing all the whorls. The last whorl of the shell is widely solute and strongly inclined downward, forming an angle of approximately 45 degrees, with the strongly rounded base. Operculum characteristic of the subgenus as defined by Bartsch (1942, p. 39).

Measurements of holotype: Diameter 8.25 mm., height 5 mm., aperture 3.5 mm.

Type locality: Anse a L'Eau, Department du Sud, Haiti, under banana roots in a farm. Collected by Oscar Alcalde Ledon and Fernando de Zayas, July 1951. Holotype in Collection Alcalde, no. 13022. Paratype (figs. 1 and 2) in American Museum of Natural History, no. 79826.

This interesting addition to the *Crocidopoma* of Hispaniola is most closely related to *C. abbotti* Bartsch from the Dominican Republic. It is, however, easily distinguished by the strongly solute and sharply descending last whorl. Although the shell outline is basically planorbiform, the strongly depressed body whorl gives it a false helicoid appearance.



1 & 2, *Crocidopoma zayasi* Alcalde & Jacobson, paratype, approximately $\times 3$.
 3, *Oocorys tosaensis*, Habe & Azuma, type, natural size. 4, *Spiraxis splendens* Thompson, type.